

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
NATIONAL SCIENCE AND TECHNOLOGY)	File Nos. 0002864440, 0002919013
NETWORK, INC.)	
)	
Petition for Partial Reconsideration of Denial of)	
Applications to Operate on Frequency Pairs)	
472/475.5250 MHz and 471/474.3500 MHz)	
)	
Request for Enforcement Action and License)	
Modification for WQAD318, City of El Segundo,)	
Due to Non-Construction and Non-Operation)	

MEMORANDUM OPINION AND ORDER

Adopted: January 11, 2010

Released: January 14, 2010

By the Commission: Commissioner McDowell not participating.

1. *Introduction.* This *Memorandum Opinion and Order* denies an application for review of a decision concluding that certain private land mobile radio applications did not provide sufficient interference protection to incumbent operations. National Science and Technology Network, Inc. (NSTN) seeks review of an *Order on Reconsideration*¹ by the Wireless Telecommunications Bureau's Mobility Division (Division).² The *Order on Reconsideration* confirmed the Division's grant of an informal objection by the City of El Segundo, California (El Segundo) against NSTN's above-captioned applications, and denied NSTN's request for enforcement action with respect to El Segundo's Station WQAD318.³ For the reasons discussed below, we deny the application for review.

2. *Background.* Pursuant to procedures agreed to by the private land mobile radio frequency coordinators, an application for 12.5 kHz "offset" channels in the 470-512 MHz frequency band shall not be certified if either the applicant or a co-channel or overlapping incumbent will incur unacceptable interference, as determined by the interference criteria of TIA/EIA/TSB-88⁴ (TSB-88).⁵ The

¹ National Science and Technology Network, Inc., *Order on Reconsideration*, 23 FCC Rcd 5723 (WTB MD 2008) (*Order on Reconsideration*).

² Application for Review Filed by National Science and Technology Network, Inc. (NSTN) of FCC Order on Reconsideration, DA 08-824 (filed Apr. 16, 2008) (AFR). The City of El Segundo (El Segundo) filed an opposition. Opposition of the City of El Segundo (filed May 1, 2008) (Opposition). NSTN filed a reply. Reply Filed by National Science and Technology, Inc. (NSTN) to Opposition to Application for Review of DA 08-824 (filed May 8, 2008).

³ National Science and Technology Network, Inc., *Order*, 22 FCC Rcd 11538 (WTB MD 2007) (granting El Segundo's informal objection) (*Order*), *aff'd*, *Order on Reconsideration*, 23 FCC Rcd 5723.

⁴ See Telecommunications Industry Association/Electronics Industry Association Telecommunications Systems Bulletin 88, *Wireline Communications System - Performance in Noise and Interference-Limited Situations - Recommended Methods for Technology-Independent Modeling, Simulation, and Verification* (January 1998) (TSB-88). TSB-88 is a technical bulletin describing a methodology for predicting coverage and interference for private land mobile radio stations operating below 512 MHz. In general, the TSB-88 methodology is used by frequency coordinators and others to determine channel availability based on predicted contours, *i.e.*, TSB-88 is used to ensure

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Division concluded that a TSB-88 analysis was required for NSTN's above-captioned applications because there was spectral overlap between El Segundo's licensed operations under Call Sign WQAD318 and NSTN's proposed operations, and that NSTN's proposed operations did not satisfy the TSB-88 criteria.⁶ The Division also rejected NSTN's contention that Station WQAD318 was not entitled to protection because the facilities were not timely constructed.⁷ The Division concluded that NSTN's applications should be granted only for the channels to which El Segundo did not object.⁸

3. NSTN filed a petition for reconsideration of the *Order*, and a separate request that El Segundo's license for Station WQAD318 be canceled due to non-construction or discontinuance of operation. On reconsideration, the Division affirmed that a TSB-88 analysis was required because there was spectral overlap.⁹ The Division also concluded that El Segundo provided sufficient evidence to refute NSTN's allegations of non-construction and non-operation of Station WQAD318.¹⁰ The construction of the facilities was demonstrated by declarations from the site managers and other documentation, and the operational status was confirmed by Enforcement Bureau monitoring.¹¹

4. *Discussion.* NSTN continues to assert that a TSB-88 analysis was not required because there is no spectral overlap from NSTN's proposed operations on 12.5 kHz offset channels (with occupied bandwidths of 11.25 kHz) on center frequencies 12.5 kHz removed from the center frequencies of El Segundo's 25 kHz channels (with occupied bandwidths of 20 kHz).¹² It argues that the emission mask

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that the predicted interference contour of a proposed station does not impinge on the service contours of other stations. *See* State of Maryland, *Memorandum Opinion and Order*, 21 FCC Rcd 11939, 11941 ¶ 6 (PSHSB 2006).

⁵ *See* Filing Freeze to be Lifted for Applications under Part 90 for 12.5 kHz Offset Channels in the 421-430 and 470-512 MHz Bands, *Public Notice*, 13 FCC Rcd 5942, 5942 (WTB 1997) (citing Letter from Larry A. Miller, President, LMCC, to Daniel B. Phythyon, Esq., Acting Chief, Wireless Telecommunications Bureau (Sept. 10, 1997) (LMCC Consensus)). The LMCC Consensus provides that an application shall not be certified if either the applicant or a co-channel or overlapping incumbent will incur unacceptable interference of more than five percent reduction of the calculated service area reliability. *See* LMCC Consensus at 1. The Commission had directed the frequency coordinators to reach a consensus for coordinating 12.5 kHz offset channels in the 470-512 MHz band. *See* Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignment Policies of the Private Land Mobile Services, *Second Report and Order*, PR Docket No. 92-235, 12 FCC Rcd 14307, 14330-31 ¶ 43 (1997).

⁶ *See Order*, 22 FCC Rcd at 11539 ¶ 3. El Segundo objected to NSTN's above-captioned applications, asserting that NSTN's proposed operations on frequency pairs 471/474.3500 MHz and 472/475.5250 MHz did not satisfy the interference protection criteria of TSB-88 with respect to El Segundo's operations on frequency pairs 471/474.3375 MHz and 472/475.5375 MHz.

⁷ *See id.* at 11539 ¶ 4.

⁸ *See id.* at 11539 ¶ 5. El Segundo requests that the application for review be dismissed as procedurally defective because NSTN failed to reject and return the partial grant of its applications, as required by Section 1.945(e) of the Commission's Rules, 47 C.F.R. § 1.945(e), when it filed its petition for reconsideration of the *Order*. *See* Opposition at 3-5. We note, however, that NSTN could not have rejected the partial grants when it filed its petition for reconsideration, because the Division issued the grants later.

⁹ *See Order on Reconsideration*, 23 FCC Rcd at 5724-25 ¶ 5. The Division also rejected NSTN's argument that its proposed operations should not be deemed to overlap El Segundo's spectrum because Section 90.187(b)(2) of the Commission's Rules, 47 C.F.R. § 90.187(b)(2), affords protection only to stations with center frequencies 7.5 kHz or less removed from a proposed 12.5 kHz station. *See id.* at 5725 ¶ 6.

¹⁰ *See id.* at 5726-27 ¶ 8.

¹¹ *See id.* at 5726-27 ¶¶ 8-9.

¹² *See* AFR at 9-13.

reduces the actual bandwidth used for communications such that 12.5 kHz channel stations and 25 kHz channel stations modulate approximately plus or minus 2.5 kHz and 5 kHz, respectively, from the center frequency, and the signal beyond that range is “spurious emissions” not necessary for communications.¹³ We disagree. The necessary bandwidth is reflected in the emission mask,¹⁴ rather than in some smaller figure suggested (without support or authority) by NSTN. The Division correctly found that there is spectral overlap between NSTN’s proposed operations and El Segundo’s incumbent station.¹⁵

5. NSTN argues that it presented persuasive evidence that El Segundo failed to construct or operate Station WQAD318.¹⁶ The party arguing that a license has canceled automatically for lack of construction or discontinuance of operations must overcome evidence of construction and operation proffered by the licensee.¹⁷ We agree with the Division that “the documents provided by El Segundo adequately refute NSTN’s allegations regarding the construction and operation of Station WQAD318’s facilities.”¹⁸ Moreover, Enforcement Bureau inspections subsequent to the filing of the application for review confirmed that the facilities authorized under Call Sign WQAD318 were constructed and

¹³ See *id.* at 10-11. NSTN asserts that “[t]he FCC and the industry have confused ‘channel spacing’ with ‘occupied bandwidth.’” See *id.* at 11 n.8.

¹⁴ See 47 C.F.R. § 2.201(a). Moreover, the necessary bandwidth “is not the only characteristic of an emission to be considered in evaluating the interference that may be caused by that emission.” 47 C.F.R. § 2.202(d).

¹⁵ NSTN also argues that Section 90.187, which affords protection only to stations with center frequencies 7.5 kHz or less removed from a proposed 12.5 kHz station, “determines where spectral overlap must be considered (i[.].e[.], when a frequency study is required by the rules), or no spectral overlap exists, and no frequency study is required.” AFR at 10. As the Division explained, however, Section 90.187 determines only whether the applicant will be required to monitor the proposed frequency, and is not the standard for determining whether the application must satisfy the TSB-88 criteria. See *Order on Reconsideration*, 23 FCC Rcd at 5725 ¶ 6. TSB-88 is applicable when there is spectral overlap, even if the separation between the proposed 12.5 kHz center frequency and the incumbent center frequency exceeds 7.5 kHz. See, e.g., *University of Southern California, Order*, 19 FCC Rcd 23155, 23156 ¶ 4 (WTB PSCID 2004) (agreeing with NSTN that an applicant proposing operations on 12.5 kHz offset channels on center frequencies 12.5 kHz removed from the center frequency of NSTN’s 25 kHz channels had to satisfy TSB-88); see also Ralph A. Haller, *Letter*, 23 FCC Rcd 4714, 4715-16 (WTB/PSHSB 2008) (explaining the difference between the Section 90.187 and TSB-88 criteria).

¹⁶ See AFR at 5-9. Specifically, NSTN states that had the Enforcement Bureau inspected El Segundo’s licensed sites, it would have determined that the facilities were unconstructed and that the transmissions detected by the Enforcement Bureau’s monitoring actually originated from El Segundo’s co-channel Station WQCV954. See *id.* at 6-8. NSTN also suggests that the Division should have sent El Segundo an inquiry pursuant to Section 308(b) of the Communications Act of 1934, as amended, 47 C.F.R. § 308(b), but does not explain what information a 308(b) inquiry could be expected to produce beyond what El Segundo submitted in opposition to NSTN’s pleadings in this proceeding. See AFR at 8. NSTN further argues that the *Order on Reconsideration* failed to consider evidence that El Segundo “was in violation of the ‘real party in interest rules,’ in that it was abusing its status of a public safety entity to warehouse public safety spectrum which is being held for sale by a commercial 50 percent partner who is not eligible to hold the spectrum.” *Id.* We agree with El Segundo that this allegation has no relevance to whether Station WQAD318 was constructed and operational. See *Opposition* at 7.

¹⁷ See, e.g., *Quatron Communications, Inc., Memorandum Opinion and Order*, 15 FCC Rcd 4749 (2000) (*Quatron*); *Interstate Consolidation, Inc., Memorandum Opinion and Order*, 15 FCC Rcd 3330 (2000). The Commission has broad discretion as to how much weight to accord disputed facts based on the existing record. See *Quatron*, 15 FCC Rcd at 4754 ¶ 15 (citing *Gencom, Inc. v. FCC*, 832 F.2d 171, 181 (D. C. Cir. 1987)).

¹⁸ *Order on Reconsideration*, 23 FCC Rcd at 5726-27 ¶ 8. Nor do we believe that NSTN’s burden is satisfied by the new allegation that “El Segundo has recently added a false . . . identifier to its WQCV954 fixed station transmitter claiming to be WQAD318,” see AFR at 9, which NSTN offers as circumstantial evidence that the facilities authorized under Call Sign WQAD318 are not operational. Nonetheless, because such transmissions would violate Section 90.425 of the Commission Rules, 47 C.F.R. § 90.425(a), we refer the allegation to the Enforcement Bureau for investigation and appropriate action.

operational.

6. *Conclusion.* We conclude, based on the record before us, that the *Order on Reconsideration* correctly denied NSTN's petition for reconsideration of the *Order* and request for enforcement action with respect to El Segundo's license for Station WQAD318. We therefore deny the application for review.

7. Accordingly, IT IS ORDERED, pursuant to Sections 4(i) and 5(c) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 155(c), and Section 1.115 of the Commission's Rules, 47 C.F.R. § 1.115, that the application for review filed by National Science and Technology Network, Inc. on May 1, 2008 IS DENIED.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

**STATEMENT OF COMMISSIONER ROBERT M. McDOWELL
NOT PARTICIPATING**

RE: *NATIONAL SCIENCE AND TECHNOLOGY NETWORK, INC., Petition for Partial Reconsideration of Denial of Applications to Operate on Frequency Pairs 472/475.5250 MHz and 471/474.3500 MHz, Request for Enforcement Action and License Modification for WQAD318, City of El Segundo, Due to Non-Construction and Non-Operation, File Nos. 0002864440, 0002919013; Memorandum Opinion and Order, FCC 10-8*

I am not participating in this proceeding in order to avoid the appearance of a conflict of interest. My brother, Kelly McDowell, is mayor of El Segundo, California, the city that is a licensee involved in this matter.